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In the U.S. Patent and Trademark Office

Inventor Maynard et al.

Paper:

Serial number: 10/786,662

Group: 3736

Filed: 02/25/2004

Examiner: Kremer, Matthew J

Title: Determination of pH Including Hemoglobin Correction

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Response to Office Action**

Responsive to the Office Action mailed 8/11/2004, Applicant submits the following in complete response thereto, and requests reconsideration of the Claims presented.

**Amendment**

Please amend the Claims and Specification, as shown on the attached sheets.

**Fee**

After the present Amendment, there are 26 Claims total, of which 5 are independent. Applicant previously paid for 29 total Claims, and 4 independent Claims. Please charge the \$88 fee for one additional independent claim, and the \$110 fee for a petition for a one month extension of time to respond, and any underpayments, and credit any overpayments, to deposit account 502443.

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03/17/2005 DLILES 00000011 502443 10786662

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02 FC:1201 200.00 DA

representing absorbance differences, can then be combined in various ways. *Scharlack* does not teach determination of the concentration of hemoglobin, as required in Claims 1 and 14. Accordingly, *Scharlack* does not teach all the limitations of Claims 1 and 14, and there is no *prima facie* case of anticipation.

Further, the methods of Claims 1 and 14 have the limitation of a step that selects a model that is applicable for samples having the determined hemoglobin concentration. *Scharlack* has no teaching of such a step, not surprising since *Scharlack* does not determine hemoglobin concentration. *Scharlack* has a single model that is cognizant of the pH vectors, and accordingly has no need for determination of hemoglobin concentration, and no need (or teaching) of selection of a model applicable to samples with specific hemoglobin concentrations. Accordingly, *Scharlack* does not teach all the limitations of Claims 1 and 14, and there is no *prima facie* case of anticipation. Applicant submits that Claims 1 and 14, and Claims 2-5, 10-13, 15-18, and 23-26 depending therefrom, are in condition for allowance.

#### Claims 10 and 23

As discussed above, *Scharlack* does not teach all the limitations of parent Claims 1 and 14. Claims 10 and 23 further recite the limitation to spectral measurements at resolutions of 64cm<sup>-1</sup> or finer. *Scharlack* does not teach this resolution. Accordingly, *Scharlack* does not teach or suggest all the limitations of Claims 10 and 23, and there is no *prima facie* case of anticipation. Applicant submits that, even if the parent claims were anticipated by *Scharlack*, Claims 10 and 23 are allowable.

#### Claims 11 and 24

Applicant has amended Claims 11 and 24 to remove the alternative of noninvasive measurement of perfused tissue. Applicant's invention allows the user of hemoglobin concentration determined in any manner; specifically, in Claims 11 and 24, determined by measurement of blood samples. The hemoglobin concentration can then be used to improve the performance of spectroscopic pH determinations. *Scharlack* does not teach measurement of hemoglobin concentration, and consequently does not teach the use of hemoglobin concentrations determined from blood samples and used in connection with a spectroscopic determination of pH. Accordingly, *Scharlack* does not teach all the limitations of Claims 11 and 24, and there is no *prima facie* case of anticipation. Applicant submits that, even if the parent claims were anticipated by *Scharlack*, Claims 11 and 24 are allowable.

#### **Conclusion**

Applicant has responded to each and every rejection and urges that the Claims as presented are in condition for allowance. Applicant requests expeditious processing to issuance.

Respectfully submitted,

  
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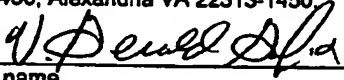
Dec 7, 2004  
date

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#### **Certificate of Mailing**

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents; P.O. Box 1450; Alexandria VA 22313-1450.

Dec 7, 2004  
date

  
name

**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective October 1, 2003

Application or Docket Number

10/786662  
P-0110 US 2

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS	29	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	29 minus 20 =	9
INDEPENDENT CLAIMS	4 minus 3 =	1
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

\* If the difference in column 1 is less than zero, enter "0" in column 2

**CLAIMS AS AMENDED - PART II**

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 26 Minus	** 29	= -
Independent	* 5 Minus	*** 4	= 1
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* Minus	**	=
Independent	* Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* Minus	**	=
Independent	* Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

- \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
  - \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
  - \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
- The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SMALL ENTITY TYPE ☐

OR OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	385.00
XS 9=	
X43=	
+145=	
TOTAL	

RATE	FEE
BASIC FEE	770.00
XS18=	162
X86=	86
+290=	0
TOTAL	1018

SMALL ENTITY TYPE ☐

OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
XS 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
XS18=	
X86=	86
+290=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
XS 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
XS18=	
X86=	
+290=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
XS 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
XS18=	
X86=	
+290=	
TOTAL ADDIT. FEE	